



Complete Summary

GUIDELINE TITLE

Analgesic-associated kidney disease.

BIBLIOGRAPHIC SOURCE(S)

Thomas M. Analgesic-associated kidney disease. Nephrology 2006 Apr;11(S1):S123-5.

Thomas M. Analgesic-associated kidney disease. Westmead NSW (Australia): CARI - Caring for Australasians with Renal Impairment; 2005 Sep. 7 p. [17 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY

SCOPE

DISEASE/CONDITION(S)

- Analgesic-associated kidney disease
- End-stage kidney disease

GUIDELINE CATEGORY

Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine

Nephrology
Pediatrics

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To evaluate the available clinical evidence pertaining to the impact of interventions on renal functional decline in analgesic nephropathy

TARGET POPULATION

Adults and children with analgesic-associated nephropathy

INTERVENTIONS AND PRACTICES CONSIDERED

1. Cyclo-oxygenase (COX)-1 inhibitors
2. COX-2 inhibitors

MAJOR OUTCOMES CONSIDERED

- Renal function decline
- Blood pressure control

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Databases searched: The search for MeSH terms and text words for analgesic nephropathy was carried out in Medline (1966 to September Week 2 2004).

Date of search: 17 September 2004.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Recommendations of Others. Recommendations regarding Analgesic-associated kidney disease from the following groups were discussed: Kidney Disease Outcomes Quality Initiative, UK Renal Association, Canadian Society of Nephrology, European Best Practice Guidelines, Analgesic-Associated Kidney Disease. NIH Consensus Statement 1984, Ad Hoc Committee of the International Study Group on Analgesics and Nephropathy, and US Food and Drug Administration.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the levels of evidence (I–IV) can be found at the end of the "Major Recommendations" field.

Guidelines

- a. Analgesic intake should be discontinued in patients with analgesic nephropathy. (Level II– III evidence)
- b. Non-selective cyclo-oxygenase-1 (COX-1) and COX-2 inhibitors (with the specific exception of low dose aspirin) should be avoided, where possible, in patients with hypertension, as their use is associated with loss of blood pressure (BP) control and reduction in efficacy of antihypertensive drug therapy. (Level I evidence)
- c. Analgesic and anti-inflammatory therapy form an important component of the management of a variety of chronic degenerative diseases. (Level I evidence)
The beneficial effects of these agents should be balanced against the risk of progressive renal damage and hypertension associated with their chronic and habitual use.

Suggestions for Clinical Care

(Suggestions are based on Level III and IV evidence)

- Continued analgesic intake is associated with an increased faster rate of decline of renal function and increased risk of end-stage kidney disease (ESKD) in patients with analgesic nephropathy. (Level II-III evidence; large prospective cohort studies; clinically relevant outcomes; consistent strong effects).
- Cessation of analgesic use has been associated with retardation of kidney failure progression. (Level II-III evidence; several retrospective cohort studies; clinically relevant outcomes; variable effects).
- The use of non-selective COX-1 and COX-2 inhibitors is associated with loss of BP control and reduction in efficacy of antihypertensive drug therapy. (Level I-II evidence; large meta-analyses and randomized control trials (RCTs), clinically relevant outcomes; consistent strong effects)

Definitions:

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of analgesic and anti-inflammatory therapy to prevent the progression kidney disease

POTENTIAL HARMS

- The use of non-selective cyclooxygenase (COX)-1 and COX-2 inhibitors is associated with loss of blood pressure control and reduction in efficacy of antihypertensive drug therapy.
- Progressive renal damage and hypertension is associated with the chronic and habitual use of non-selective COX-1 and COX-2 inhibitors.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Apr

GUIDELINE DEVELOPER(S)

Caring for Australasians with Renal Impairment - Disease Specific Society

SOURCE(S) OF FUNDING

Industry-sponsored funding administered through Kidney Health Australia

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Author: Merlin Thomas

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All guideline writers are required to fill out a declaration of conflict of interest.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [Caring for Australasians with Renal Impairment Web site](#).

Print copies: Available from Caring for Australasians with Renal Impairment, Locked Bag 4001, Centre for Kidney Research, Westmead NSW, Australia 2145

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- The CARI guidelines. A guide for writers. Caring for Australasians with Renal Impairment. 2009 Aug. 6 p.

Electronic copies: Available from the [Caring for Australasians with Renal Impairment \(CARI\) Web site](#).

PATIENT RESOURCES

None available

NGC STATUS

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